

WHAT IS CLAIMED IS:

1. A liquid crystal display apparatus comprising:
a plurality of pixels arranged in rows and columns, each for
providing luminance corresponding to a display voltage;
a plurality of first gate lines provided corresponding to respective
5 said rows of said plurality of pixels;
a plurality of second gate lines provided corresponding to respective
said rows of said plurality of pixels;
a plurality of data lines provided corresponding to respective said
columns of said plurality of pixels;
10 a gate drive circuit for driving each of said plurality of first and
second gate lines to a voltage that is different between a select state in which
corresponding one of said rows is selected for a scanning target in
accordance with a prescribed scanning cycle and a non-select state except for
said select state; and
15 a source drive circuit for driving said plurality of data lines to said
display voltage that corresponds to the pixels included in the row selected
for said scanning target;
said plurality of pixels each including
a liquid crystal element having a pixel electrode and a common
20 electrode for providing luminance that corresponds to a voltage difference
between said pixel electrode and said common electrode,
a first field-effect transistor electrically connected between
corresponding one of said data lines and a first node, and having its gate
electrically connected to corresponding one of said first gate lines, and
25 a second field-effect transistor electrically connected between said
first node and said pixel electrode, and having its gate electrically connected
to corresponding one of said second gate lines;
said gate drive circuit setting each voltage of said first and second
gate lines in said select state to a first voltage that can turn-on each of said
30 first and second field-effect transistors, while setting a voltage of said first
gate line in said non-select state to a second voltage that can turn-off said

first field-effect transistor as well as setting a voltage of said second gate line in said non-select state to a third voltage that is intermediate between a maximum value and a minimum value of said display voltage.

2. The liquid crystal display apparatus according to claim 1,
said common electrode being supplied with a prescribed DC voltage,
and said third voltage being substantially at a same level as said prescribed
DC voltage.

3. The liquid crystal display apparatus according to claim 1,
said common electrode being supplied with an AC voltage that is set
to one of fourth and fifth voltages in a constant cycle, and
said third voltage being substantially at a same level as an average
5 of said fourth and fifth voltage.

4. The liquid crystal display apparatus according to claim 1,
said gate drive circuit including
a plurality of drive units provided corresponding to said rows,
respectively;
5 said plurality of drive units each including
a first driver for driving corresponding one of said first gate lines
with one of said first and second voltages in response to a select signal that
indicates whether said corresponding one of said rows is selected for said
scanning target, and
10 a second driver for driving corresponding one of said second gate
lines with one of said first and third voltages in response to said select
signal.

5. The liquid crystal display apparatus according to claim 1,
said gate drive circuit setting said second gate line in the non-select
state to said third voltage in a normal mode, and setting to a sixth voltage in
a test mode, and
a difference between said first and sixth voltages being larger than a

difference between said first and third voltages.

6. The liquid crystal display apparatus according to claim 5,
said sixth voltage being substantially at a same level as said second
voltage.

7. The liquid crystal display apparatus according to claim 1,
said first and second field-effect transistors being formed with an N-
type thin film transistor, and
said first voltage being higher than said second voltage.

8. The liquid crystal display apparatus according to claim 1,
said first and second field-effect transistors being formed with a P-
type thin film transistor, and
said first voltage being lower than said second voltage.

9. A liquid crystal display apparatus comprising:
a pixel for providing luminance corresponding to a display voltage;
and

5 a data line for transmitting said display voltage supplied to said
pixel;

said pixel including
a liquid crystal display element having a pixel electrode and a
common electrode for providing luminance corresponding to a voltage
difference between said pixel electrode and said common electrode,
10 a first field-effect transistor electrically connected between said data
line and a first node, and
a second field-effect transistor electrically connected between said
first node and said pixel electrode;

15 the liquid crystal display apparatus further comprising
a gate drive circuit for driving each gate voltage of said first and
second field-effect transistors to a voltage that is different between a select
state in which said pixel is selected for a scanning target in accordance with

a prescribed scanning cycle and a non-select state except for said select state;

20 said gate drive circuit in said select state setting each said gate voltage to a first voltage that can turn-on each of said first and second field-effect transistors, while setting a gate voltage of said first field-effect transistor in said non-select state to a second voltage that can turn-off said first field-effect transistor as well as setting a voltage of said second field-effect transistor in said non-select state to a third voltage that is intermediate between a maximum value and a minimum value of said display voltage.